



Sustainable Winegrowing in California

California Biodiversity Council:
Working Landscapes in California

May 1, 2008

A close-up photograph of several clusters of ripe, dark blue grapes hanging from a vine. The grapes are in sharp focus, showing their individual round shapes and the natural texture of their skin. The background is a soft, out-of-focus green, suggesting the presence of leaves and other parts of the vine.

CALIFORNIA
SUSTAINABLE
WINEGROWING
ALLIANCE

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Sustainable Winegrowing

Growing and winemaking practices that are sensitive to the **E**nvironment, responsive to the needs and interests of society-at-large (social **E**quity), and **E**conomically feasible to implement and maintain = **3 E's** or **Triple Bottom Line**





Sustainability Values

- Produce best quality wine and grapes possible
- Provide leadership in protecting environment, conserving natural resources
- Maintain long-term viability of ag lands
- Support economic and social wellbeing of employees
- Respect and communicate with neighbors and community members
- Enhance local communities through job creation, supporting local business and actively working on important community issues
- Honor the CA wine community's entrepreneurial spirit
- Support research & education and monitor & evaluate existing practices to expedite continual improvement



Code of Sustainable Winegrowing Practices

- Viticulture
- Soil Management
- Vineyard Water Management
- Pest Management
- Wine Quality
- Ecosystem Management
- Energy Efficiency
- Winery Water Conservation & Quality
- Material Handling
- Solid Waste Reduction & Management
- Environmentally Preferred Purchasing
- Human Resources
- Neighbors & Communities
- Air Quality





SWP Cycle of Continuous Improvement





SWP Self-Assessment

Vineyard Self-Assessment Participation (as of October 2006)

Number of Distinct Vineyard Enterprises	990 enterprises	
Total Vineyard Acres Farmed by the 990 Enterprises	288,072 acres	55.2% of 522,000 total statewide acres
Number of Vineyard Acres Assessed by the 990 Enterprises	171,764 acres	32.9% of 522,000 total statewide acres
Number of Vineyard Enterprises that Submitted Assessment Results	807 enterprises	81.5% of 990 total enterprises
Total Vineyard Acres from the 990 Enterprises Assessed and Submitted	152,799 acres	29.3% of 522,000 total statewide acres

Winery Self-Assessment Participation (as of October 2006)

Number of Distinct Winery Enterprises	175 facilities	
Total Cases Produced by the 175 Enterprises	170.7 million cases	62.5% of 273 million total statewide cases
Number of Cases Assessed by the 175 Enterprises	143.8 million cases	52.7% of 273 million total statewide cases
Number of Winery Enterprises that Submitted Assessment Results	107 facilities	61.1% of 175 total facilities
Total Cases from the 107 Winery Enterprises Assessed and Submitted	114.9 million cases	42% of 273 million total statewide cases



SWP Workbook Framework

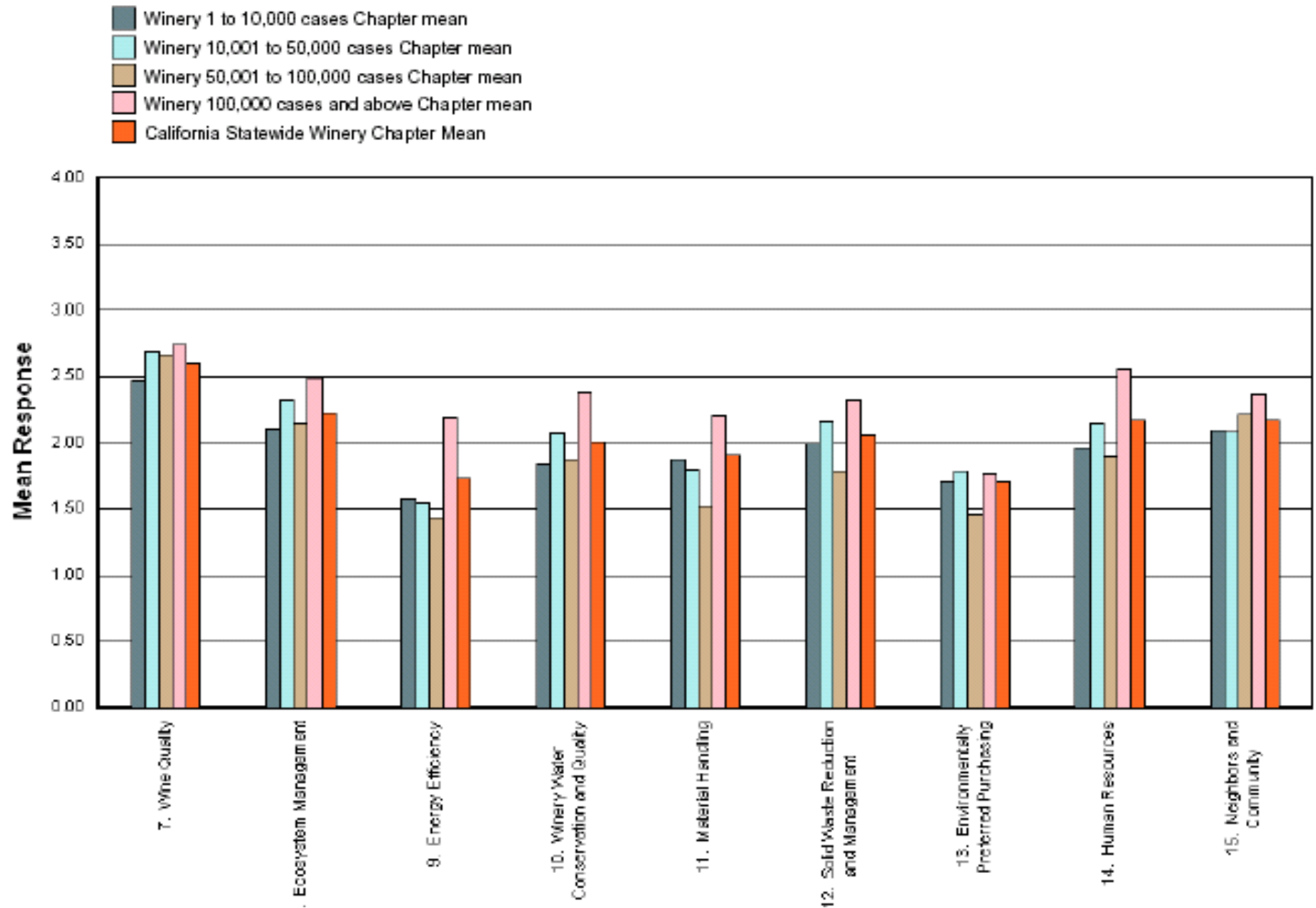
SOIL MANAGEMENT - TILTH

CRITERIA	CATEGORY 4	CATEGORY 3	CATEGORY 2	CATEGORY 1
4-8 Organic Matter (Skip if organic matter sufficient for your soil type)	A combination of organic matter is added to the soil annually (e.g. permanent or annual cover crop, compost, and/or manure) And Tillage is reduced or eliminated to lower the rate of organic matter breakdown.	Some form of organic matter is added to the soil annually (e.g. annual cover crop, compost, manure, or a combination of cover crop and manure or compost).	Resident vegetation is allowed to grow in the winter.	No organic matter is added to the soil other than what the vine produces, and resident vegetation is minimized in the winter And The vineyard is clean tilled.
<i>Organic matter improves soil tilth and structure, improves aeration and infiltration, increases water-holding capacity, buffers soil pH, increases the availability of micronutrients, provides a source of plant nutrients, and feeds beneficial micro-organisms</i>				

227 Criteria
with Four
Categories of
Practices

INCREASING SUSTAINABILITY

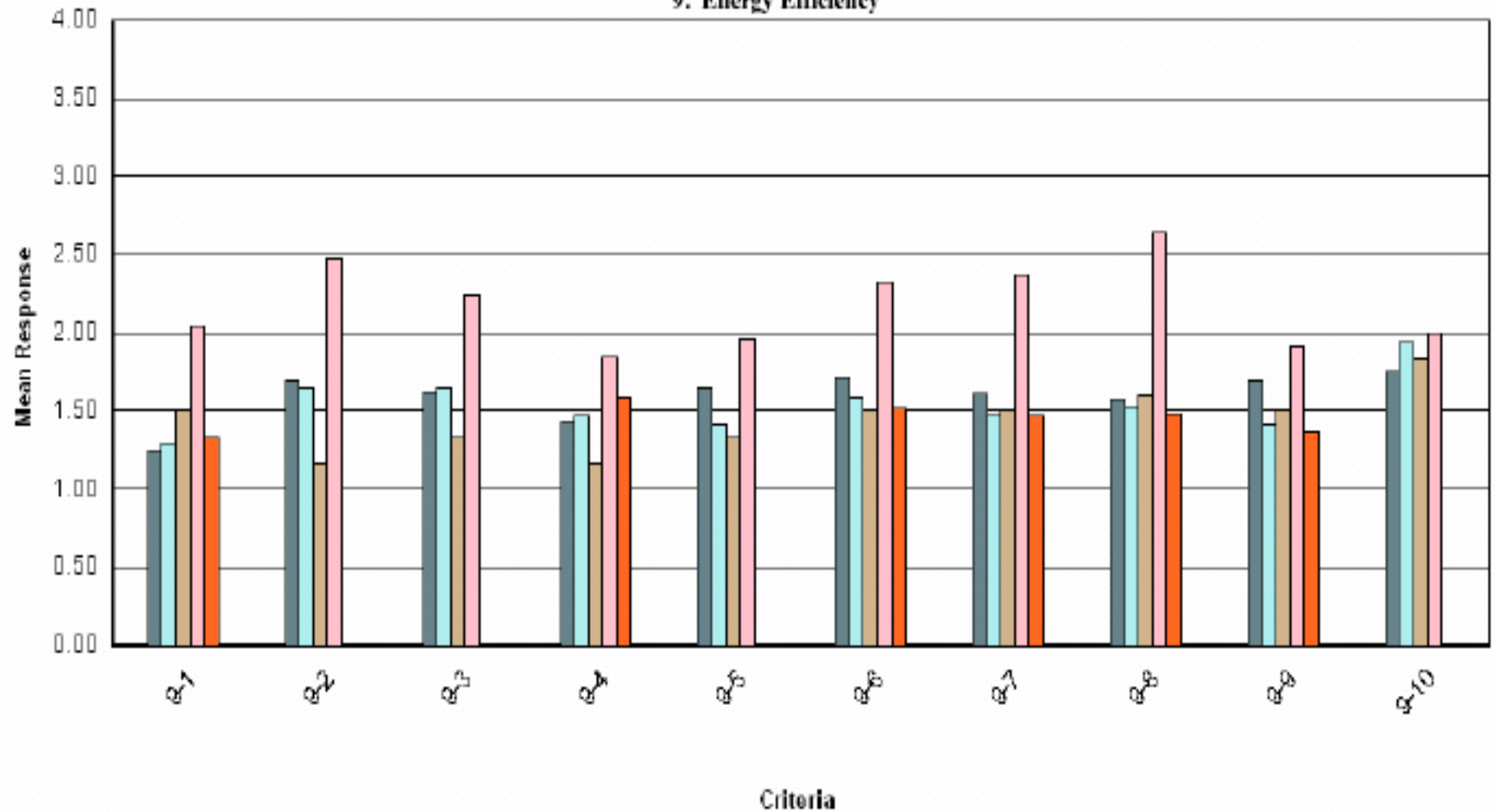
Chapter Mean Comparison



Criteria Mean Comparison

- 0-10,000 cases Winery Criteria
- 10,000-50,000 cases Winery Criteria
- 50,001 to 100,000 cases Winery Criteria
- 100,001 cases and above Winery Criteria
- California Statewide Vineyard Criteria Mean

9. Energy Efficiency





Sustainability Reports



www.sustainablewinegrowing.org



2004 Report Results

Relative Strengths and Opportunities

STRENGTHS

- Viticulture
- Soil Management
- Wine Quality
- Ecosystem Management

MIDDLE GROUND

- Vineyard Water Management
- Pest Management
- Winery Water Conservation & Quality
- Human Resources
- Neighbors & Community

MOST OPPORTUNITIES

- Energy Efficiency
- Material Handling
- Solid Waste
- Environmentally Preferred Purchasing



Targeted Education

- Integrated Pest Management 2004+
 - Funded by American Farmland Trust and DPR
- Ecosystem Management 2005+
 - Funded by National Fish and Wildlife Foundation
- Energy Efficiency 2005+
 - Funded by Pacific Gas & Electric
- Air and Water Quality 2006+
 - Funded by USDA's Natural Resources Conservation Service

**5000+ participants in
targeted ed events**



Ecosystem Management

- Created new partnerships that advanced the ecosystem management components for the SWP
- Developed and disseminated educational materials on ecosystem management
- Held 10 workshops to provide information and encourage adoption of sustainable practices
- Updated content of educational materials and workshops





Biodiversity & Habitat Conservation

- Document and demonstrate effects of biodiversity and habitat protection in CA vineyards
- Disseminate information about “best practices” through workshops and website resources

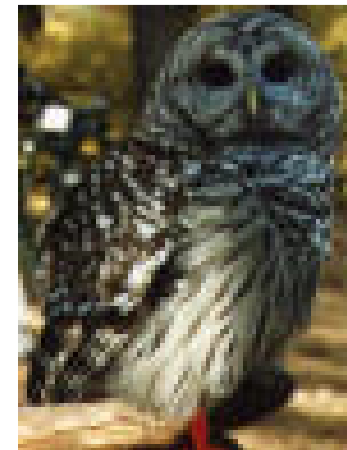


Case Studies

Bonterra Vineyards
Fetzer Vineyards
Milovina Vineyards
Benziger Vineyard
Preston Vineyards

Researchers & Coordinators

- CSWA (Thrupp, Browde)
- UCCE (McGourty, Papper)
- Cal Poly SLO (Costello, Welch, Church)
- Advice from UCD & USB researchers





Biodiversity & Habitat Conservation

Practices used to conserve or enhance biodiversity:

- Planting diverse varieties and clones in one vineyard
- Planting cover crops, including flowering plants
- Conserving or planting vegetation/habitat or trees around/in vineyards (eg, islands, borders)
- Habitat corridors or hedgerows planted between/beside vines
- Building structures to attract beneficial birds (raptors)
- Using compost (or other soil amendments) to enhance diversity of microorganisms in the soil
- Introducing grazing animals in vineyards
- Integrating other cash crops





Targeted Education

Upcoming:

- Risk Management
- Climate Change
- Green Building
- Process Water
- GHG and Other Web-based Tools

2009 Sustainability Report



SWP Accomplishments

- Leveraged existing efforts (regional and statewide)
- Formed 50 member Joint Committee of WI & CAWG (2001)
- Published SWP Workbook (2002; online and 2nd edition 2006)
- Worked with key partners: regional associations, government agencies, universities & NGOs





SWP Accomplishments

- Formed CA Sustainable Winegrowing Alliance (2003)
- Held more than 200 self-assessment and targeted education events throughout CA
- Published 2004 Sustainability Report and 2006 Progress Report
- Leveraged more than \$2.6 Million in Grants





SWP Challenges

- Increasing existing and new participation
 - Incentives and benefits
- Defining “sustainability” in the marketplace
 - Third-party certification and public outreach
- Meeting/workshop fatigue
 - On-line self-assessment and webinars
- Securing on-going resources
 - Diversify funding and ensure value to industry



Why Use Sustainable Practices?

- Be proactive to increasing environmental pressures
- Respond effectively to social concerns
- Reduce unnecessary inputs and outputs
- Minimize risk and liability exposure
- Reduce costs and enhance economic viability
- Join network of wine community members





www.sustainablewinegrowing.org



Thank you!